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Greece Asparagus Voluntary 2005

Approved by:

Ann Murphy U.S. Embassy Rome

Prepared by:

Stamatis Sekliziotis

Report Highlights:

Asparagus production in Greece became significant in the 1980s when 600 hectares were cultivated and production reached 1,200 tons. By 1997 cultivated area peaked at 7,330 hectares with an output of 26,500 tons. In 2000 output peaked at 35,520 tons. In recent years there has been a drop in acreage but yields have almost doubled since the crop was introduced. Production in the last five years has been on the order of 20,000 to 22,000 tons annually. Greece's major market for asparagus is Germany.

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Executive Summary

Production

Asparagus (*Asparagus officinalis*) is grown systematically in Greece since the early 80s, mostly in central Macedonia (prefectures of Thessaloniki, Pella, Imathia & Serres), some in Thrace (Northeast), in Thessaly plain (prefecture of Larissa) and some in the Southwest in the region of Agrinion (prefecture of Aitoloakarnania). The cultivation of asparagus started experimentally in the early 70s. A significant area of 600 hectares was reported cultivated in 1982 with an output of 1,230 tons. By the year 1997 area cultivated in asparagus reached 7,330 hectares with an output of 26,500 tons (average yield at 3,590 kg/Ha). In 2000, an area of 6,248 Ha was cultivated with an output of 35,520 tons and an average yield of 5,690 kg/Ha. Although a drop in acreage is observed, yields have almost doubled since the crop was introduced, thanks to better varieties and better practices applied in farming. Recorded yields fluctuate significantly due to weather conditions and the fact that the varieties used are sensitive to extreme low temperatures. Planted acreage in Greece is directly dependent on predictions of planted acreage in competitive countries like Spain, France and the Netherlands and their plans and tactics to increase their presence in the German market. Germany has shown continuous imports since 1975.

Greek farmers became more familiar with the crop over the past two decades and have learned better practices for asparagus cultivation and handling. Since 2001, total acreage has dropped further and today does not exceed 4,000 Ha, but with relatively higher yields (3,450 – 5,250 kg/Ha). Annual production from 2001 to date has fluctuated between 20,000 and 22,000 tons, except for 2003, unusually low temperatures and long lasting frost damaged the crop which consequently reached only 12,000 tons. This year's output will be in the neighborhood of 21,000 tons, a relatively late harvest due to wet weather in the spring and delays in harvesting due to a late Greek Orthodox Easter which kept workers away for many days.

Acreage and Production of Asparagus in Greece 1/

| Crop Year | 2001 | 2002 | 2003 | 2004 | 2005 | |
|-----------------------------|--------|--------|------------------|--------|------------------|--|
| Acreage (Ha) | 5,800 | 5,300 | 5,000 | 4,500 | 4,000 | |
| Production (tons) | 20,000 | 20,000 | 12,000 2/ | 22,000 | 21,000 3/ | |
| Average Yield (kg/Ha) | 3,448 | 3,774 | 2,400 | 4,889 | 5,250 | |

- 1/ Source: Ministry of Agricultural development and Food & Trade sources
- 2/ Low output due to adverse weather conditions
- 3/ Preliminary estimates, subject to further revision

This drop in acreage took place following significant increases in production costs that -have adversely affected farmer's incomes and processors' demand for lower farmer prices. There has been stiff competition in the European markets particularly after the accession of the Czech Republic, Hungary and Poland to the EU.

Asparagus in Greece is a labor-intensive crop and the cost of production today is estimated at about 40 percent of the grower price received. The work force in the fields is mainly Albanian and Bulgarian immigrant labor.

According to the Fresh Fruit & Vegetable trade associations, it is very probable that asparagus acreage will recover in the next decade by shifting to varieties in higher demand and by shifting cultivation to different regions in the country. Southwestern Greece with a milder climate (a little warmer from that in Central Macedonia) may be the new areas of asparagus expansion in the years to come. These regions would permit early harvest and will certainly contribute to the prolongation of the trading season for the Greek product and its longer presence in international markets. Reportedly, this expansion southwest becomes a necessity for the asparagus industry in Greece, not only due to better bioclimatic conditions, but also due to land availability with better soils. Central Macedonia, and particularly the prefecture of Pella where most of asparagus is currently produced, is a saturated region with leading traditional crops like peaches, pears, irrigated cereals and cotton.

Asparagus harvesting starts at the end of February in the south and lasts until mid June in the north. According to farmer groups, this year's grower price will not exceed €1.5 /kg, which is reported to be equal to that paid a year earlier (2004), but the product is of very good quality. This price is not a farm gate price, but a processor's price. Most processors pay for transportation expenses.

The area left over after the recent asparagus crop acreage reduction, is cultivated mostly to corn, cotton, irrigated cereals and forage plants and many field vegetables. The acreage devoted to asparagus was taken over gradually by peaches, nectarines, pears or other fruit crops in central Macedonia.

The varieties of asparagus grown in Greece are both white (ALEXANDRE MARIONETTE, DARBONE) and green (LORELLA, JACQ.MAVERTE) and hybrids (LARAC, ANETO, DESTO). The largest proportion of production is of white asparagus and it is questionable for how long this type will be produced in Greece, taking into consideration that green varieties are showing in growing demand in the European markets.

The value of a crop of 22,000 tons (2004 crop), is roughly calculated at 35 million Euros. The advantages of Greek asparagus are the growing conditions (abundant sun after cold winters) and the high quality of the product. Attention is given to high yields and better quality. Packers and processors cooperate closely with farmer groups in their regions and provide technical assistance and knowledge to farmers.

Trade

Most Greek asparagus is exported to central Europe. The Munich Central Vegetable Market Grossmarkthale absorbs the bulk, almost 90 percent of the total exported volume. About 87 percent of production is sold out of Greece. Greeks do not consume a lot of asparagus, compared to the size of the crop and the population. Exports take place as fresh and processed (frozen and canned). Fresh asparagus is transported by air, mainly to German fresh markets.

Seven countries buy almost all of Greek asparagus (Germany, Spain, France, Holland, Italy, Austria and the UK). Spain buys second quality fresh product to be processed (for canning). The main competitors of Greece in the EU markets are Spain, France and Holland. However, Greece is the leading exporter to Germany and covers 48.7 percent of total German imports in volume terms and 36.7 percent in value terms. According to FAO statistics (Food and Ag products export trade statistics of 2002), Greece was the fifth largest asparagus exporter in the world for fresh product and second in Europe after Spain. Among Greek fresh produce exports, asparagus is ranked forth after citrus, grapes peaches and nectarines, and sixteenth among all Greek exported products.

Prospects for Greek asparagus exports to Europe are highly dependent on the supply and demand developments in the main producing and importing countries. France, after a long domination of the markets has considerably reduced activity, but recently has shown signs to regain lost ground in the EU markets. Spain is the most important competitor of Greece with promising prospects for further market expansion. Spain's quantity and quality are high, seriously threatening Greece's presence in central Europe (Germany in particular) and after expansion of the crop in Andalusia (with early harvest possibilities, due to favorable climate) and with a parallel reduction of acreage in the north. Holland has stabilized its production, and dominates on quality, but does not offer early harvested product. Germany is the largest asparagus market in the world, but with its continuing increase in production, German domestic production may threaten Greece's share in this important market. Switzerland is a good and highly demanding market, where the French - Spanish competition dominate.

Asparagus Total Greek Exports (2001 – 2004)

| | 2001 | 2002 | 2003 | 2004 |
|---|--------|--------|--------|----------------|
| Calendar Year | | | | |
| Total exports by Volume, fresh and processed (000 Tons) | 23,000 | 22,987 | 15,977 | 15,957 |
| Exports by Value (Million USD) | 44.0 | 46.8 | 33.8 | 31.0 mil Euros |

Analytically for Greece, asparagus export/import trade data (volume & value), as provided by the GOG National Statistical Service, are as follows by type, country of destination and origin (2002 – 2004):

2002 Greek Exports of fresh or chilled asparagus (Combined Nomenclature 07.09.20.00) (January – December 2002, 1 USD = 1.0649 Euro)

| Country of Destination | Quantity in Tons | Value (000' USD) | | |
|------------------------|------------------|------------------|--|--|
| Germany | 15,932 | 33, 265 | | |
| Netherlands | 2,156 | 3,590 | | |
| France | 712 | 941 | | |
| Switzerland | 188 | 645 | | |
| Spain | 129 | 148 | | |
| All other | 139 | 202 | | |
| TOTAL | 19,256 | 38,791 | | |

2002 Greek Exports of Asparagus, whether or not cooked by boiling in water or by steaming, frozen (Combined nomenclature: 07.10.80.85)

| Country of destination | Volume (tons) | Value (000' USD) | |
|------------------------|---------------|------------------|--|
| Germany | 2,648 | 5,740 | |
| Netherlands | 1,083 | 2,273 | |
| TOTAL | 3,731 | 8,013 | |

2003 Greek Exports of fresh or chilled asparagus (Combined Nomenclature 07.09.20.00) (January – December 2003, 1 USD = 0.8831 Euro)

| Country of Destination | Quantity in Tons | Value (000' USD) | | |
|------------------------|------------------|------------------|--|--|
| Germany | 12,296 | 25,684 | | |
| Netherlands | 1,502 | 3,135 | | |
| France | 310 | 475 | | |
| Switzerland | 20 | 82 | | |
| Spain | 184 | 245 | | |
| All other | 106 | 316 | | |
| TOTAL | 14,418 | 29,937 | | |

2003 Greek Exports of Asparagus, whether or not cooked By boiling in water or by steaming, frozen (Combined nomenclature: 07.10.80.85)

| Country of destination | Volume (tons) | Value (000' USD) | |
|------------------------|---------------|------------------|--|
| Germany | 1,558 | 3,887.1 | |
| Bulgaria | 1 | 0.5 | |
| TOTAL | 1,559 | 3,887.6 | |

2004 Greek Exports of fresh or chilled asparagus (Combined Nomenclature 07.09.20.00) (January – December 2004, VALUE: in Euros)

| Country of Destination | Quantity in Tons | Value (000' EUROS) | |
|------------------------|------------------|--------------------|--|
| Germany | 12,110 | 22,869 | |
| Netherlands | 1,069 | 2,416 | |
| France | 408 | 658 | |
| Switzerland | 131 | 452 | |
| Austria | 179 | 355 | |
| Italy | 220 | 294 | |
| Belgium & Lux | 14 | 16 | |
| Spain | 35 | 15 | |
| All other | 22 | 20 | |
| TOTAL | 14,188 | 27,095 | |

2004 Greek Exports of Asparagus, whether or not cooked by boiling in water or by steaming, frozen (Combined nomenclature: 07.10.80.85)

| Country of destination | Volume (tons) | Value (000' Euros) | |
|------------------------|---------------|--------------------|--|
| Germany | 1,643 | 3,762 | |
| France | 67 | 112 | |
| Netherlands | 35 | 51 | |

| Italy | 18 | 26 |
|---------------|-------|-------|
| Spain | 5 | 3 |
| Belgium & Lux | 1 | 3 |
| TOTAL | 1,769 | 3,957 |

Imports into Greece are of negligible importance. For the period under discussion (2002 – 2004), they were as follows:

Asparagus
Total Greek Imports by volume and value

| Year | 2002 | 2002 | 2003 | 2003 | 2004 | 2004 |
|--------------------|------|------------|------|------------|------|-------------|
| | Tons | Value | Tons | Value | Tons | Value |
| | | (000' USD) | | (000' USD) | | (000' Euro) |
| Fresh & Chilled | 30 | 119 | 151 | 323 | 673 | 1,054 |
| Processed & Frozen | 77 | 172 | 643 | 1,113 | 27 | 85.0 |

Integrated Crop Management (ICM) & Organic Production of Asparagus in Greece

In 2003 there was a certified acreage of 201 Hectares in Greece where asparagus is cultivated under the requirements of integrated management. This area represents 45 percent of total vegetable cultivation in Greece registered under the Integrated Management System. The certification of farms takes place according to protocols of EUREPGAP and AGRO 2.1 and 2.2 by EUROCERT, CHECKMATE INTERNATIONAL PLC and AGROCERT. In 2002, the certified asparagus acreage for Organic cultivation was only 20 Hectares, certified according to relevant EU regulations in effect. Organic crop certification is provided by one of the three accredited organizations in Greece (DIO, BioHellas and Physiologiki).

Asparagus Market structure in Greece and Policies

The most known and well-organized asparagus Farmer Groups in Greece are: "FILIPPOS", HELIOS", "EUROSPARGEL", "NESTOS" and others. All together, the farm groups dealing with asparagus in Greece are 40. The numbers of associate members per group are between 100-150 growers. These organizations provide sorting, packing and deep freeze facilities and are becoming more interested in the technology, which permits their asparagus harvest to arrive in prime condition on the EU markets. Greek asparagus is an export-oriented sector and in order to fulfill this objective, hydro cooler systems are also installed, which prevent deterioration in the quality of the product, mainly its appearance. In general, these partnerships are engaged in the packing distribution and exporting of asparagus and are fully modernized.

Greek packers and processors are obliged to comply with EU Regulation No. 183/64 which pertain quality grading of asparagus to be commercialized within the EU. According to the regulation, there are three categories based on color (white, violet and green asparagus). The EXTRA II category requires a minimum diameter of 12 mm, while that of Grade - 1, a diameter of 10 mm. EXTRA II grade is a secondary quality grade with slightly blooming stalk tops and visible infections. Length of stems is of two categories, long (17-22 cm) and short (12-17 cm). As regards the uniformity of bundles, EU relevant regulation require 12-16 mm of stalk diameter for grade category No. 1 and 16-22 mm for grade EXTRA II.

Asparagus production and processing in Greece is not a part of the EU CMO system (Common Market Organization) and no price subsidies, processing subsidies, export subsidies and/or income supports or premiums are paid by the FEOGA fund.

Grower prices for asparagus delivered to private packing and processing industries are a product of long lasting negotiations between the two parties. In years of sufficient or excess production, processors offer very low prices to farmers. It is reported that there is no good coordination among farmer groups in achieving better prices and developing market policies to the common interest. This year, farmer Organizations together with traders have decided to form an Asparagus Management Organization until the end of 2005, which will handle production and trading policies in a better coordinated way. One of the problems Greek fruit and vegetables have faced in recent years, were the long conflict in Yugoslavia which adversely affected the cost of transport to central Europe. Asparagus and other products had to be transported through Italy. This alternative route increased the transport time for fresh products by 50 percent and the costs by 150 percent.

In December 2004, GOG Ministry of National Economy has published the new Development and Investment Law No. 3299/2004 in the Official Government Gazette (FEK No 261/Vol A' /12.23.2004), which has not yet entered the implementation stage. Reportedly, this law will be activated before the end of May 2005 with interpretational Ministerial Decisions expected to be published by then. The law sets the Incentives for Private Investments in the country, per sector and geographical region, in the framework of the EU Convergence Plan for the Economy, abolishing the old Investment Laws No. 2601 and 1257. Article No 3 of the new Law talks about the Primary Sector and the incentives provided for submitted investment plans, concerning the Agricultural Processing Industry, including the fruit and vegetable processing sub sector. The Law provides four (4) types of support:

- 1. A Subsidy (Part of the Investment according to type and Region) covering part of the total investment plan fluctuating from 50 100% of the expenditure
- 2. Lease subsidy (as above)
- 3. Tax exemption (up to a certain percentage or the whole expenditure of the plan, fluctuating from 50% 100% according to the case)
- 4. Subsidization of the additional working force cost, resulting from the new investment (fluctuating from 18.5% 45.5%, according to the case).

All the support provided by the Law is destined for activities such as new buildings, modernization of production and packaging lines and equipment, electronic infrastructure, other). The Greek asparagus industry as a whole, although highly modernized, presently and under this Law, any significant investments to be considered by the sector, are not announced.

The law offers opportunities to the wider Agricultural sector like, Organic Agricultural Activities, Aquaculture, Green house productions, Purchase of Agricultural Machinery, Activities carried out only by Ag Cooperatives and farming Groups (at Primary level: asparagus farmers and other vegetable producers are included here) and provided that these organizations were established according to EU Regulations. Energy saving, Environmental friendly technologies and practices, Processing of other Industry By-products and recycling and establishment of online marketing and promotion activities, are activities under the new Law which can qualify for financial support.

In addition, in the framework of the EU Structural programs under way (3d Package – Measure 2.1) an amount of 1,254 million Euros are available for the fruit and vegetable sectors in Greece, specifically for the processing sector and the marketing of processed agricultural products. The asparagus sector is included in the program. Measure 2.1 offer

850 million from the EU fund and 404 million from the National budget, just for the Ag Processing and Marketing sectors. It is reported that a number of 801 investment applications under the above Structural Plan were qualified by the Ministry of Agriculture in two phases (Directorate of Planning and Agricultural Restructuring). A third phase started in April 2005, with a total additional amount of 180 million Euros. Most of vegetable processing sectors has applied. There is no information if asparagus businesses have applied and/or qualified, although it is reported that they are considering and/or have used this investment opportunity.

A third support recently announced is that for new farmers under the age of 40, who have entered farming in the period between 08.04.2004 and 06.10.2005. This plan operates under Measure 3.1 (New farmers – Age Improvement and Composition of the Rural population), again under the EU 3d Package Orientation plans. New qualified farmers receive varied financial supports; according to the region they are located and size of farm, the viability of their businesses in the overall market context and the structure of the local population in the region they have decided to farm. There are 90 million Euros available for this plan (of which 59 million Euro, came from a recent 3d Package reform announced by GOG). Financial supports vary from 15,000 Euros up to 25,000 Euros per individual new farmer, according to the region. New farmers in less favored and remote regions, receive the higher supports.

Conclusion

Asparagus is a dynamic alternative crop for Greece and especially in areas where crop restructuring becomes a necessity. Acreage is neither critical nor a limiting factor, but yields per area unit show an increase under new growing practices applied, with improved early harvested varieties and the establishment of modern processing facilities supported by investment laws for modernization and capacity expansion. In recent years, shifts towards more green variety production and cultivation in regions less susceptible to extreme low temperatures are seriously considered as the means to gain larger market segments in central Europe. The competition is dominated by French and Spanish production. The competitive advantages for Greek asparagus are local growing conditions and the high quality of the product.